Speed controllers, 5.6 A, 2.2 kW, Sensor input 4, 230/277 V AC, AS-Interface®, S-7.4 for 31 modules, HAN Q4/2, with manual override switch



Part no. RASP5-5402A31-412R000S1 198818

Draduct name	Fatan MacHarita Parid Link Con 1
Product name	Eaton Moeller® series Rapid Link Speed controller
Part no.	RASP5-5402A31-412R000S1
EAN	4015081968763
Product Length/Depth	157 millimetre
Product height	270 millimetre
Product width	220 millimetre
Product weight	3.58 kilogram
Certifications	RoHS UL 61800-5-1 CE IEC/EN 61800-5-1 UL approval
Product Tradename	Rapid Link
Product Type	Speed controller
Product Sub Type	None
Catalog Notes	3 fixed speeds and 1 potentiometer speed can be switched over from U/f to (vector) speed control Connection of supply voltage via adapter cable on round or flexible busbar junc Diagnostics and reset on device and via AS-Interface integrated PTC thermistor monitoring and Thermoclick with safe isolation optional: 4 sensor inputs with M12-Y adapter for switchover to creep speed optional: Faster stop if external 24 V fails Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation with AUTO - OFF/RESET - HAND key switches with selector switch REV - OFF - FWD
Features	Diagnostics and reset on device and via AS-Interface Parameterization: Fieldbus Parameterization: Keypad Parameterization: drivesConnect mobile (App) Parameterization: drivesConnect
Fitted with:	Manual override switch IGBT inverter Key switch position AUTO Selector switch (Positions: REV - OFF - FWD) PTC thermistor monitoring Control unit Key switch position OFF/RESET Two sensor inputs through M12 sockets (max. 150 mA) for quick stop and interlocked manual operation Thermo-click with safe isolation Internal DC link PC connection Key switch position HAND
Functions	For actuation of motors with mechanical brake 3 fixed speeds 1 potentiometer speed
Degree of protection	IP65 NEMA 12
Electromagnetic compatibility	1st and 2nd environments (according to EN 61800-3)
Overvoltage category	III
Product category	Speed controller
Protocol	ASI AS-Interface profile cable: S-7.4 for 31 modules
Radio interference class	C2, C3: depending on the motor cable length, the connected load, and ambient conditions. External radio interference suppression filters (optional) may be necessary. C1: for conducted emissions only
Rated impulse withstand voltage (Uimp)	2000 V

	Phase-earthed AC supply systems are not permitted.
Mounting position	Vertical
Shock resistance	15 g, Mechanical, According to IEC/EN 60068-2-27, 11 ms, Half-sinusoidal shock ms, 1000 shocks per shaft
Vibration	Resistance: 10 - 150 Hz, Oscillation frequency Resistance: 57 Hz, Amplitude transition frequency on acceleration Resistance: 6 Hz, Amplitude 0.15 mm Resistance: According to IEC/EN 60068-2-6
Altitude	Max. 2000 m
Aubicator	Above 1000 m with 1 % performance reduction per 100 m
Ambient operating temperature - min	-10 °C
Ambient operating temperature - max	40 °C
Ambient storage temperature - min	-40 °C
Ambient storage temperature - max	70 °C
Climatic proofing	In accordance with IEC/EN 50178 < 95 %, no condensation
Current limitation	0.5 - 5.6 A, motor, main circuit
Delay time	Adjustable, motor, main circuit
Delay time	< 10 ms, On-delay < 10 ms, Off-delay
Efficiency	98 % (η)
Heat dissipation at current/speed	36.6 W at 25% current and 0% speed 38.1 W at 25% current and 50% speed 42 W at 50% current and 0% speed 42.5 W at 50% current and 90% speed 44.2 W at 50% current and 90% speed 55.9 W at 100% current and 50% speed 58.3 W at 100% current and 90% speed 60.4 W at 100% current and 50% speed
Input current ILN at 150% overload	5.3 A
Leakage current at ground IPE - max	3.5 mA
Mains current distortion	120 %
Mains switch-on frequency	Maximum of one time every 60 seconds
Mains voltage - max	480 V
Mains voltage - min	380 V
Mains voltage tolerance	380 - 480 V (-10 %/+10 %, at 50/60 Hz)
Operating mode	Synchronous reluctance motors Sensorless vector control (SLV) PM and LSPM motors U/f control BLDC motors
Output frequency - max	500 Hz
Output frequency - min	0 Hz
Overload current	At 40 °C For 60 s every 600 s
Overload current IL at 150% overload	8.4 A
Rated frequency - max	66 Hz
Rated frequency - min	45 Hz
Rated operational current (le)	$5.6~\mbox{A}$ at 150% overload (at an operating frequency of 8 kHz and an ambient air temperature of +40 °C)
Rated operational power at 380/400 V, 50 Hz, 3-phase	2.2 kW
Rated operational voltage	400 V AC, 3-phase 480 V AC, 3-phase
Resolution	0.1 Hz (Frequency resolution, setpoint value)
Starting current - max	200 %, IH, max. starting current (High Overload), For 2 seconds every 20 seconds Power section
Supply frequency	50/60 Hz
Switching frequency	8 kHz, 4 - 32 kHz adjustable, fPWM, Power section, Main circuit
Assigned motor power at 460/480 V, 60 Hz, 3-phase	3 HP
Braking current	≤ 0.6 A (max. 6 A for 120 ms), Actuator for external motor brake

Braked control voltage 200/277 V A C. 15 % / 10 %, Actuator for occernal morar brake 200/277 V A C. 15 % / 10 %, Actuator for occernal morar brake 200/277 V A C. 15 % / 10 %, Actuator for occernal morar brake 200/277 V A C. 15 % / 10 %, Actuator for occernal morar brake 200/277 V A C. 15 % / 10 %, Actuator for occernal morar brake 200/277 V A C. 15 % / 10 %, external virus be feeder unit, Main circuit 200/277 V A C. 15 % / 12 % per state 200/277 V A C. 15 % / 12 % per state 200/277 V A C. 15 % / 12 % per state 200/277 V A C. 15 % / 12 % per state 200/277 V A C. 15 % / 12 % per state 200/277 V A C. 15 % / 12 % per state 200/277 V A C. 15	Braking torque	≤ 30 % (I/Ie) Adjustable to 100 % (I/Ie), DC - Main circuit
Type 1 coordination via the power bus 'feeder unit, Main circuit Reted central valtage (Uc) 220/77 V.AC (contend brake 5(\$160 Hz) 24 V DC (-15 %/420 %, external via AS-Interface® plug) Communication interface	Braking voltage	230/277 V AC -15 % / +10 %, Actuator for external motor brake
Type 1 coordination via the power bus 'feeder unit, Main circuit Reted central valtage (Uc) 220/77 V.AC (contend brake 5(\$160 Hz) 24 V DC (-15 %/420 %, external via AS-Interface® plug) Communication interface		
Reted control voltage (Uc) 230/277 V AC (external brake 50/60 Hz) 23 V DC (-15 %/-20 %, oxternal via AS-Interface© plug) Communication interface AS-Interface Plug type: HAN 04/2 Number of slave addresses: 31 (AS-Interface®) Specifications S-7.4 (AS-Interface®) Specification of Selections S-7.4 (AS-Interface®) Specification of Selections S-7.4 (AS-Interface®) Specifications of treatmain endore cable length CS -5 m. maximum motor cable le	Rated conditional short-circuit current (Iq)	10 kA
Communication interface AS-Interface Connection Interfaces AS-Interface Connection Interfaces AS-Interface Plug type: HAN D4/2 Number of alleva addresses: 31 (AS-Interface®) Specification 5: 74 (AS-Interface®) Max total power consumption from AS-Interface®) power supply unit (ID VI: 190 mA Coble length Coble len	Short-circuit protection (external output circuits)	Type 1 coordination via the power bus' feeder unit, Main circuit
Plug type: HAN Q4/2	Rated control voltage (Uc)	
Plug type: HAN Q4/2	Communication interfere	AC Interfere
Interfaces Number of slave addresses: 31 (AS-Interface®)		
Specifications 3-7.4 (AS-Interface®) wax total power consumption from AS-Interface® power supply unit (30 V): 190 mA Cable length C1 ≤ 1 m, maximum motor cable length C2 ≤ 5 m, maximum motor cable length C3 ≤ 25 m, maximum motor cable length C4 ≤ 25 m, maximum motor cable length C4 ≤ 25 m, maximum motor cable length C4 ≤ 25 m, maxim		- · · ·
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	10.13 Mechanical function	

≤ 30 % (I/Ie)

Technical data ETIM 8.0

Braking torque

Low-voltage industrial components (EG000017) / Frequency converter =< 1 kV (EC001857) Electric engineering, automation, process control engineering / Electrical drive / Static frequency converter / Static frequency converter = < 1 kV (ecl@ss10.0.1-27-02-31-01 [AKE177014]) ٧ Mains voltage 380 - 480 50/60 Hz Mains frequency Number of phases input 3 Number of phases output 3 500 Max. output frequency Hz ٧ Max. output voltage 500 Nominal output current I2N 5.6 Α Max. output at quadratic load at rated output voltage kW 2.2 Max. output at linear load at rated output voltage kW 2.2 Relative symmetric net frequency tolerance 10

Relative symmetric net voltage tolerance	%	10
Number of analogue outputs		0
Number of analogue inputs		0
Number of digital outputs		0
Number of digital inputs		4
With control element		Yes
Application in industrial area permitted		Yes
Application in domestic- and commercial area permitted		Yes
Supporting protocol for TCP/IP		No
Supporting protocol for PROFIBUS		No
Supporting protocol for CAN		No
Supporting protocol for INTERBUS		No
Supporting protocol for ASI		Yes
Supporting protocol for KNX		No
Supporting protocol for Modbus		No
Supporting protocol for Data-Highway		No
Supporting protocol for DeviceNet		No
Supporting protocol for SUCONET		No
Supporting protocol for LON		No
Supporting protocol for PROFINET IO		No
Supporting protocol for PROFINET CBA		No
Supporting protocol for SERCOS		No
Supporting protocol for Foundation Fieldbus		No
Supporting protocol for EtherNet/IP		No
Supporting protocol for AS-Interface Safety at Work		No
Supporting protocol for DeviceNet Safety		No
		No
Supporting protocol for INTERBUS-Safety Supporting protocol for PROFIsafe		No
Supporting protocol for SafetyBUS p		No No
Supporting protocol for BACnet		No No
Supporting protocol for other bus systems		
Number of HW-interfaces industrial Ethernet		0
Number of Interfaces PROFINET		0
Number of HW-interfaces RS-232		0
Number of HW-interfaces RS-422		0
Number of HW-interfaces RS-485		1
Number of HW-interfaces serial TTY		0
Number of HW-interfaces USB		0
Number of HW-interfaces parallel		0
Number of HW-interfaces other		1
With optical interface		No
With PC connection		Yes
Integrated breaking resistance		No
4-quadrant operation possible		No
Type of converter		U converter
Degree of protection (IP)		IP65
Degree of protection (NEMA)		12
Height	mm	270
Width	mm	220
Depth	mm	157